

REMARKS

Claims 1-65 are pending in the present application. In the Office Action mailed 16 December 2003, the Examiner rejected claims 1-6, 9, 12-13, 15, 22-24, 28-31, 34, 38, 44, 47-48, 50-55, 58, and 60-65 under 35 U.S.C. 102(e) as being anticipated by Paulraj et al. [U.S. Pat. 6,351,499], hereinafter referred to as Paulraj. In this amendment, Applicants traverse all rejections in the Office Action and amend independent claims 1, 44, 47, 48, 52, 53, 54, and 63.

Claim Rejections – 35 USC § 102

Claims 1-6, 9, 12-13, 15, 22-24, 28-31, 34, 38, 44, 47-48, 50-55, 58, and 60-65 are rejected under 35 U.S.C. 102(e) as being anticipated by Paulraj.

Applicants' Claim 1 reads:

A method for scheduling data transmission for a plurality of terminals in a wireless communication system, comprising:

forming at least one set of terminals for possible data transmission for each of a plurality of frequency bands, wherein each set includes one or more terminals and corresponds to a hypothesis to be evaluated;

evaluating the performance of each hypothesis;

selecting one hypothesis for each frequency band based on the evaluated performance;
and

scheduling the one or more terminals in each selected hypothesis for data transmission on the corresponding frequency band.

Applicants' Claim 1 involves data transmission for a plurality of terminals and the selection of a set of terminals for transmission on each of a set of frequency bands. Paulraj does not teach or recite the selection of a set of terminals based on a hypothesis. Rather, Paulraj teaches the case of one transmit unit and one receive unit, both having multiple antennas. There

is no teaching anywhere in Paulraj of a selection of a set of terminals for transmission on each of a set of frequency bands.

Paulraj does teach that the “BTS sends transmit signals to all receive units via channels” (Please see column 5, lines 45-67). Paulraj is, however, simply talking about a cellular wireless system. Nowhere does Paulraj mention selection of a set of terminals for transmission based on a hypothesis. Rather Paulraj teaches optimization between a transmitter and receiver with multiple antenna arrays. Specifically, Paulraj states “the method of the invention implements an adaptive and optimal selection of order of spatial multiplexing, order of diversity as well as rate of coding and bit-loading over transmit antenna array to antenna array.” (Please see Paulraj column 6 lines 4-25). This is optimization between transmitter and receiver antenna arrays and not a selection of terminals based on a hypothesis as in Applicant’s claim. Therefore, Claim 1 is novel and patentable over Paulraj because Paulraj does not teach all elements and features of Applicant’s claim.

Similarly independent claims 44, 47-48, 52, 53, 54, 58, 62, 63, and 65 also involve a set of terminals for transmission on each of a set of frequency bands. All independent claims in the present Application for patent, and thereby all the dependent claims, are novel and patentable over Paulraj and are allowable.

Applicants amend independent claims 1, 44, 47, 48, 52, 53, 54, and 63 in order to highlight the above distinctions and to expedite prosecution. Specifically, Applicants amend these claims to highlight the feature of selecting a set of terminals.

Allowable Subject Matter

Claims 7, 8, 10, 11, 14, 16-21, 25-27, 32, 33, 35-37, 39-43, 45, 46, 49, 56, 57, 59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In light of the above arguments, the base claims are allowable and Applicants request speedy allowance of these objected-to-claims.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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